

Notice of Allowability

Application No.

09/745,481

Examiner

Jerome Grant II

Applicant(s)

IGUCHI ET AL

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12-21-2004.
2. ☒ The allowed claim(s) is/are 1-44.
3. ☒ The drawings filed on 26 December 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 12-21-04 & 3/25/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

JEROME GRANT II
PRIMARY EXAMINER

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

In claim 42, amend as follows:

Claim 42 (Amended): An image processing apparatus comprising:

a setting unit adapted to set, so as to make a density of an output image higher than a density of an input image, an extent of a correction for the input image in accordance with a ratio of a shadow area in the input image,

wherein, in case where the ratio of the shadow area is large, the extent of the correction is set so as to make the increase of the density small as compared with a case where the ratio of the shadow area is small.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Grant II whose telephone number is 571-272-7463. The examiner can normally be reached on Mon.-Fri. from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams, can be reached on 571-272-7471. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Grant II

JEROME GRANT II
PRIMARY EXAMINER



Reasons for Allowance

Claims 1-9 are allowed for the reason the prior art does not teach in claimed combination, "... setting the correction conditions for correcting components regarding the brightness of the image data on the basis of the calculated ratio."

Claim 10 is allowed based upon the persuasiveness of the argument.

Claims 11-15 and 25 are allowed for the reasons set forth in the office action mailed Aug. 12, 2004.

Claim 16 is allowed for the reason the prior art does not show in claimed combination, "... setting means for setting the correction conditions for correcting components regarding the brightness of the image data on the basis of the calculated ratio."

Claim 17 is allowed based upon the persuasiveness of the argument.

Claims 18 and 21 are allowed for the reasons provided in the office action mailed Aug. 12, 2004.

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Claim 19 is allowed for the reason the prior art does not teach in claimed combination, code for setting the correction conditions for correcting components regarding the brightness of the image data on the basis of the calculated ratio.

Claim 20 is allowed based upon the persuasiveness of the argument.

Claim 22 is allowed for the reason the prior art does not teach or suggest, "... wherein the discrimination of the color distribution of the image is executed by acquiring a highlight point and a shadow point of the image from the histogram, and a cumulative frequency of a predetermined range of the histogram."

With respect to claims 23 and 24, the prior art does not show "...wherein said discrimination unit executes the discrimination of the color distribution of the image by acquiring a highlight point and a shadow point of the image from the histogram, and a cumulative frequency of a predetermined range of the histogram.

Claims 26-28, 32 and 34 are allowed for the reason the prior art does not teach or suggest in claimed combination, determining an extent of the correction on the basis of the discriminated degree of lightness of the image and the acquired ratio of cumulative frequency and correcting the brightness of the image data on the basis of the determined extent of the correction .

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Claims 29-31, 33 and 35 are allowed based upon the uniqueness over the prior art regarding the last three limitations of the claim.

Claims 36 and 37 are allowed for the reason the prior art does not teach or suggest in claimed combination, "... determining an extent of the correction based on the calculated brightness value and correcting the brightness of the image data based on the determined extent of the correction."

Claims 38-40 are allowed in that the prior art does not address ... extent of a correction for the input image in accordance with a ratio for a shadow area in the input image.. in a case where the ratio of the shadow area is large, the extent of the correction is set so as to make the increase of the density small as compared with a case where the ratio of the shadow area is small. "

Claim 41 is allowed for the reason the prior art does not teach in claimed combination, "... determination unit adapted to determine an extent of the correction based on the calculated brightness value; and a correction unit adapted to correct the brightness of the image data based on the determined extent of the correction."

Claims 42 and 43 are allowed for the reason the prior art does not teach or suggest in claimed combination an extent of a correction for the input image in accordance with a ratio of a shadow area in the input image.. and in a case where the ratio of the shadow area is large, the extent of the correction is set so as to make the increase of the density small as compared with a case where the ratio of the shadow area is small.

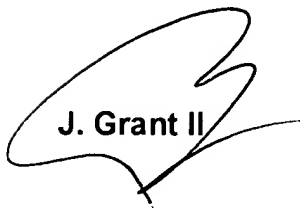
Claim 44 is allowed for the reason the prior art does not teach or suggest in claimed combination, "... an extend of correction for the input image in accordance with a ratio of a shadow area in the input image .. in a case where the ratio of the shadow area is large, the extent of the correction is set so as to make the increase of the density small as compared with a case where the ratio of the shadow area is small. "

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